# PATENT SPECIFICATION

723,284

Date of filing Complete Specification July 22, 1953.

Application Date Oct. 27, 1952. No. 26995/52.

Complete Specification Published Feb. 2, 1955.

Index at acceptance :—Class 52(3), H(6: 12A: 21).

COMPLETE SPECIFICATION

## Improvements in or relating to Multiple Superimposed Tray Assemblages

I, GORDON HENRY EMANUEL CONRADI, a British Subject, of 6 & 8, Rosebery Avenue, London, E.C.1, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to multiple superimposed tray assemblages of the kind in which the trays are mounted one above the other on a supporting structure so as to swing about an upright axis.

According to this invention a multiple tray assemblage of the kind referred to is characterised in that said trays are moulded from a plastic so as to provide within one end of each tray a boss extending up from the bottom of the tray adjacent a peripheral flange which boss has a bore engageable with the supporting structure which is of circular cross section so as to enable the trays to be swung apart. Preferably the trays are formed from a transparent plastic so that the contents of the trays can be seen although the trays are in register with one another, thereby facilitating the selection of the tray containing the required articles.

Strengthening ribs may extend outwardly from each boss and meet both the bottom wall and peripheral flange of the tray.

Each boss or tubular bearing may terminate short of the top of the peripheral flange of the tray, and spacing sleeves encircle the supporting structure between the top of each bearing and the bottom of the tray above it so as to space the trays a short distance apart.

Slots or slideways may be moulded on the inner face of the peripheral flange of each tray so as to accommodate one or more partitions extending across the tray.

One or more lugs may be moulded on the outer face of the peripheral flange to facilitate the manipulation of the tray.

The following is a description of one embodiment of the invention, reference being made to the accompanying drawings in which:—

Figure 1 is a perspective view of the assemblage, and

Figure 2 is a plan view of one of the trays. The assemblage comprises a base board 10 for example, formed of wood and which is provided, towards one edge, with two holes 11 spaced apart across the width thereof. Located in each of the two holes is a tube 12 of light metal such as aluminium alloy which is retained in the hole by a wood screw 13 the head of which is countersunk in the edge of the base board and the point of which engages a hole in the tube. The firmness of the engagement between each tube and the base board may be enhanced by knurling or otherwise roughening the ends of the tube which are arranged to be a tight fit in the holes.

Passed over each tube 12 are a number of trays 14 and intervening washers 15, the upper end of each tube is arranged to be secured in a socket formed in a spherical element 16 which elements are also provided with sockets for receiving a short cross bar 18, which may be used as a lifting handle. Somewhat longer spacing washers 19 are provided between the spherical elements and the uppermost trays.

Each of the trays is moulded from a transparent plastic so as to have a flat bottom wall 20 and an upstanding peripheral flange comprising parallel side walls 21 and rounded end walls 22. Moulded integrally between the side walls, near one of the rounded ends of the tray, is a cross piece 23 and a boss or tubular bearing 24 which latter is of such a size so as to be an easy sliding fit on one of said tubes 12. A short rib 25 extends between the bearing and the rounded end wall and a rib 26 extends from the cross

piece down to the bottom wall 20. All these parts are formed in the moulding process.

The top of the bearing 24 and the top edge of the cross piece are countersunk a short distance below the top edge of the peripheral flange. Moulded midway along each side wall 21 of each tray is a slideway or socket 27 for receiving a removable partition 28 which may also be formed from plastic. The rounded end wall at the outer end of each tray to the bearings is provided with lugs 29 so as to facilitate the manipulation of the tray.

What I claim is—

1. A multiple tray assemblage of the kind referred to wherein the trays are moulded from plastic so as to provide within one end of each tray a boss extending up from the bottom of the tray adjacent a peripheral flange which boss has a bore engagable with the supporting structure which is of circular cross section so as to enable the trays to be swung apart.

2. A multiple tray assemblage according to Claim 1 wherein strengthening ribs extend outwardly from each boss and meet both the bottom wall and the peripheral flange of the tray.

3. A multiple tray assemblage according to Claim 2 where each boss terminates short of the top of the peripheral flange of the tray and wherein spacing sleeves encircle the supporting structure between the top of each boss and the bottom of the tray above it so as to space the trays a short distance apart.

4. A multiple tray assemblage according to any of the preceding claims wherein slots or slideways are moulded on the inner face of the peripheral flange on the tray so as to accommodate one or more partitions extending across the tray.

5. A multiple tray assemblage according to any of the preceding claims wherein one or more lugs is or are moulded on the outer face of the peripheral flange to facilitate the manipulation of the trays.

6. A multiple tray assemblage according to any of the preceding claims, wherein each tray is of such shape as to provide two parallel opposite side walls which at oposite ends are joined by rounded walls and each said bearing is disposed adjacent to one of the rounded walls.

7. A multiple tray assemblage according to any of the preceding claims wherein two or more sets of trays are arranged side by side, each set being provided with a supporting structure, and which supporting structures are mounted on one and the same base.

8. A multiple tray assemblage according to Claim 7 where each supporting structure comprises a tube detachably accommodated within a socket formed at the base.

9. A multiple tray assemblage according Claim 8 wherein each said tube is retained within a socket by a pin or screw passing through a hole extending inwardly from the edge of the base, which pin engages a hole in the tube.

10. A multiple tray assemblage according to Claims 8 or 9 wherein the lower ends of the tubes are knurled or otherwise roughened so as to increase the grip between them and the sockets in the base.

11. A multiple tray assemblage according to any of Claims 8 to 10 wherein the upper ends of the tubes are secured by a cross bar forming a handle.

12. A multiple tray assemblage substantially as described with reference to the accompanying drawing.

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## PROVISIONAL SPECIFICATION

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According to this invention a multiple tray assemblage of the kind referred to is characterised in that said trays are moulded from a transparent plastic so as to provide at one end of each tray a bearing engageable with the supporting structure which is of circular cross section so as to enable the trays to be swung apart. It will be apprciated that by forming the trays from a transparent plastic the contents of the trays can be seen although the trays are in register with one another, thereby facilitating the selection of the tray containing the required articles.

Each said bearing may be of tubular character extending up from the bottom of the tray adjacent a peripheral flange of the tray.

Strengthening ribs may extend outwardly from each tubular bearing and meet the bottom wall and peripheral flange of the tray.

Each tubular bearing may terminate short of the top of the peripheral flange of the tray, and spacing sleeve encircle the supporting structure between the top of each bearing and the bottom of the tray above it so as to space the trays a short distance apart.

Sockets may be moulded on the inner face of the peripheral flange of each tray so as to accommodate one or more partitions extending across the tray.

One or more lugs may be moulded on the outer face of the peripheral flange to facilitate the manipulation of the tray.

Each tray may be of a shape to provide two parallel opposite sidewalls which at opposite ends are joined by rounded walls. The aforesaid bearings being disposed adjacent one of the rounded walls. Two or more stacks of trays may be arranged side by side, each stack being provided with supporting structures and which supporting structure may be mounted on one and the same base. Each of the supporting structures may comprise a tube of light metal such as aluminium alloy which is secured in a hole formed in the aforesaid base. The upper ends of the two tubes may be secured together by a detachable element which, after removal permits the trays to be withdrawn from the structure. The detachable connecting elements may form a carrying handle or a handle may be secured thereto.

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Leamington Spa: Printed for Her Majesty's Stationery Office, by the Courier Press.—1955.
Published at The Patent Office, 25, Southampton Buildings, London, W.C.2, from which copies may be obtained.

723,284 COMPLETE SPECIFICATION
1 SHEET

This drawing is a reproduction of the Original on a reduced scale.

Fig.1.

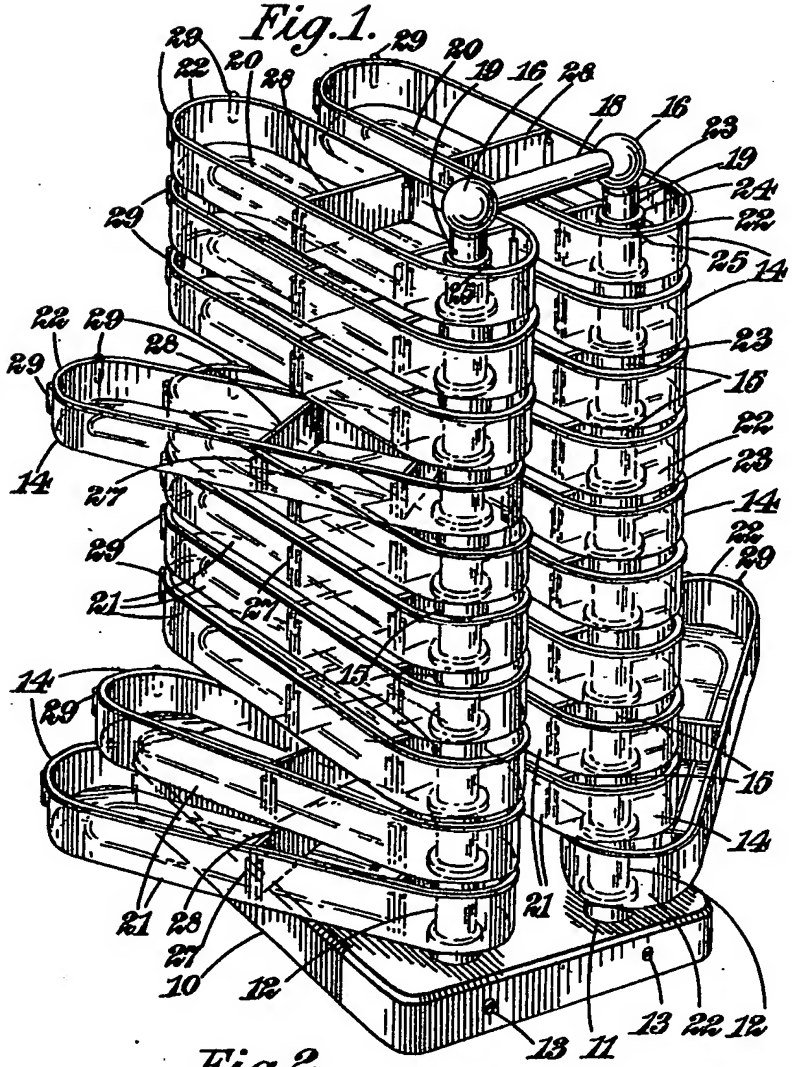

Fig.2.